Application No.: 10/682,044 Docket No.: 524412000710

CLAIM AMENDMENTS

1-16 (canceled)

17. (currently amended): A composition of matter which consists of a plugged stratum comprising which consists of a permeable stratum treated with a biofilm which comprises an elastic exopolysaccharide which exopolysaccharide is the exopolysaccharide produced by a bacterium which has the characteristics that it is Gram negative, bacilliary, about 0.2X0.8 μm, facultative anaerobe, grows between 15° and 45°C with a temperature optimum of 37°C, grows between pH 4-11 but not at pH 2, grows in AB13 medium or minimal medium, is motile, lacks a capsule, and lacks spores[[-]]; and

which plugged stratum has a saturated hydraulic conductivity equal to or less than 1.5×10^{-5} cm/sec.

- 18. (currently amended): The composition plugged stratum of claim 17, wherein the permeable stratum which is an open conduit.
- 19. (currently amended): The composition plugged stratum of claim 17, wherein the plugged stratum comprises which is a subsurface cutoff wall.
- 20. (currently amended): The composition plugged stratum of claim 17, wherein the plugged stratum which is a subsurface liner of compacted soil.
- 21. (currently amended): The-composition-plugged stratum of claim 17, wherein the plugged stratum includes which is a geotextile.
- 22. (currently amended): The eomposition-plugged stratum of claim 17, wherein the plugged stratum has a saturated hydraulic conductivity equal to or less than 1.0×10^{-7} cm/sec.

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23. (currently amended): The composition of claim 17 plugged stratum of claim 17, wherein the plugged stratum—which has a saturated hydraulic conductivity equal to or less than 1.5×10^{-8} cm/sec.

- 24. (currently amended): The composition plugged stratum of claim 17, wherein said bacterium further comprises the characteristics of an antibiotic sensitivity profile as in Table 2, a biochemistry profile as in Table 3, and a carbon utilization profile as in Table 4.
- 25. (currently amended): The composition plugged stratum of claim 24, wherein the bacterium is that deposited as ATCC No. PTA2500.
- 26. (new): The plugged stratum of claim 17 wherein the stratum has been treated with an isolated nutrient-containing culture of a bacterium that produces said elastic exopolysaccharide.